



TOWN OF PARADISE
Engineering
5555 Skyway
Paradise, CA 95969
(530) 872-6291

December 5, 2013

Ted Davini, PE, MBA
Safety Program Manager
Caltrans, Division of Local Assistance
1801 30th Street
Sacramento, CA 95816

Re: HSIPL 5425 (024) – Downtown Paradise Safety Project
Countermeasure Substitution

Dear Mr. Davini:

The Town of Paradise was awarded a Cycle 5 HSIP grant for the Downtown Paradise Safety Project using three proposed countermeasures (CM), as listed below:

- CM1** Road Diet (R15) along Skyway between Pearson Road and Elliott Road
- CM2** Signal Coordination (S3) at the intersections of Skyway/Pearson Road and Skyway/Elliott Road
- CM3** Raised Refuge Islands (NS16) at 5 crosswalk locations between Vista Way and Elliott Road

The original grant application proposed four of five CM2 refuge island crosswalks within the CM1 road diet area. With preliminary engineering underway, we have found the project will be better served using curb extensions in lieu of refuge islands. Keeping the center turn lane free of obstructions will allow flexibility in emergency response and evacuation events.

The Town of Paradise formally requests Caltrans to consider a substitution for CM3, Raised Refuge Islands (NS16) with Install Pedestrian Crossing with Enhanced Safety Features / Curb Extensions (NS18). The proposed removal is shown in the attached Exhibit A, an annotated plan view from the original grant application. At the four locations between Pearson Road and Elliott Road, pedestrians will use curb extensions to remain visible and activate rectangular rapid flashing beacons to signal their intent to cross the new three lane layout. With these countermeasures together, we can expect pedestrians to achieve improved visibility and safety crossing Skyway in the downtown corridor.

The fifth crossing location at 5555 Skyway will include a refuge island as planned. With a refuge island pedestrians can clear the first two lanes individually, reach a protected middle rest area, and clear the final two lanes.

Understanding the nature of the Highway Safety Improvement Program, the Town has attached Exhibit B, a revised calculation of the Benefit-Cost Ratio for the subject project. Raised Refuge Island's crash reduction factor is 45%; whereas Enhanced Pedestrian Crosswalk's crash reduction factor is 35%. The substitution of this countermeasure will decrease the Project's Benefit-Cost Ratio from 15.95 to 12.80. This revised calculation was made using the original collision data and total project costs.

Thank you for your time and efforts with this request. Should you have any questions or concerns, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'Marc A. Mattox', with a stylized, cursive flourish at the end.

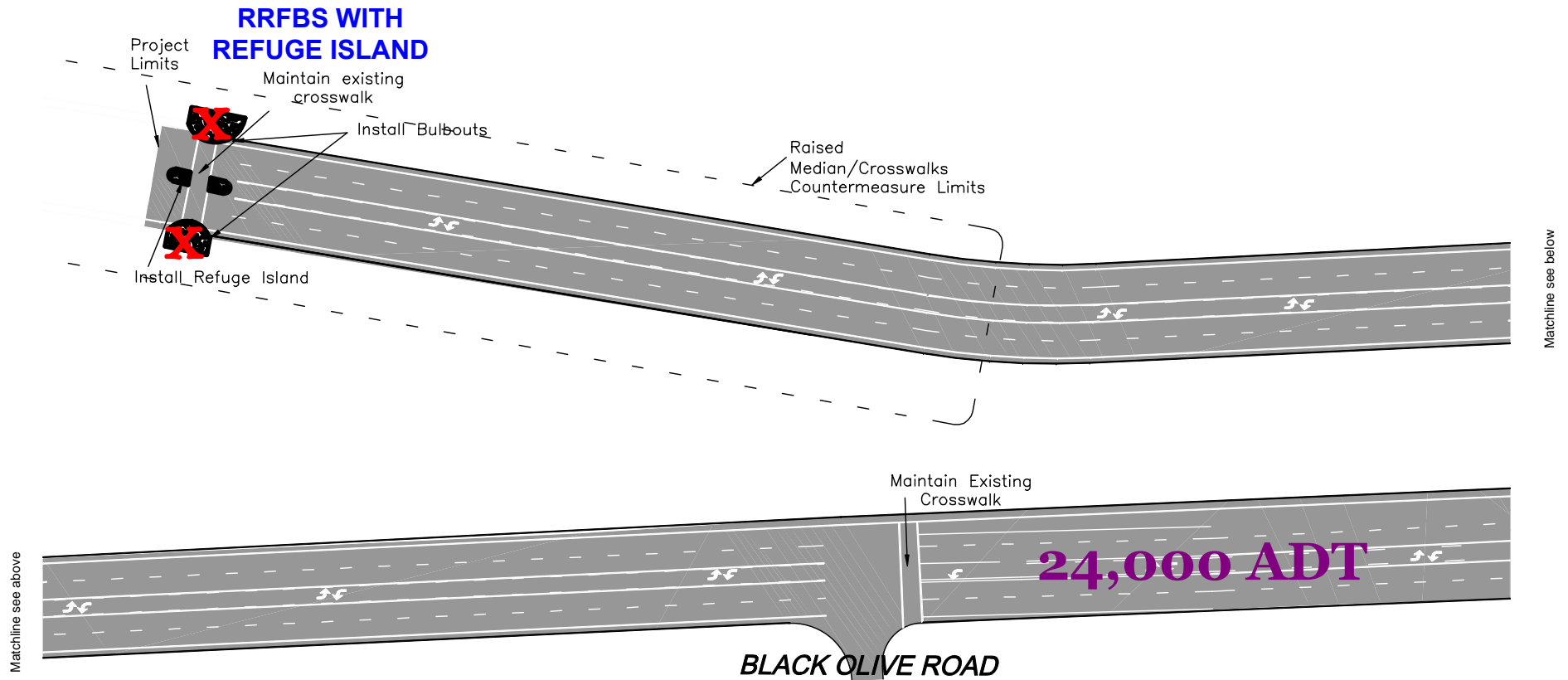
Marc A. Mattox, PE
Town Engineer

cc: Jim Day, Caltrans District 3 Local Assistance
Felicia Haslem, Caltrans District 3 Local Assistance
Lauren Gill, Town Manager, Town of Paradise
Loren Chilson, Traffic Works

Encl: Exhibit A – Annotated Project Plan View
Exhibit B – Revised Benefit-Cost Ratio

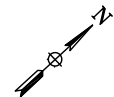
Exhibit A

Road Width / ROW does not permit curb extensions here with two lanes in each direction. Ped activated beacons recommended.



SCALE: 1"=100'

0 25 50 100



DRAWN: AGT	DESIGN: SW	CHECKED: SW
JOB NO. PAR006	DATE: JULY2012	REVISIONS:
SHEET 1 Of 2 SHEETS		

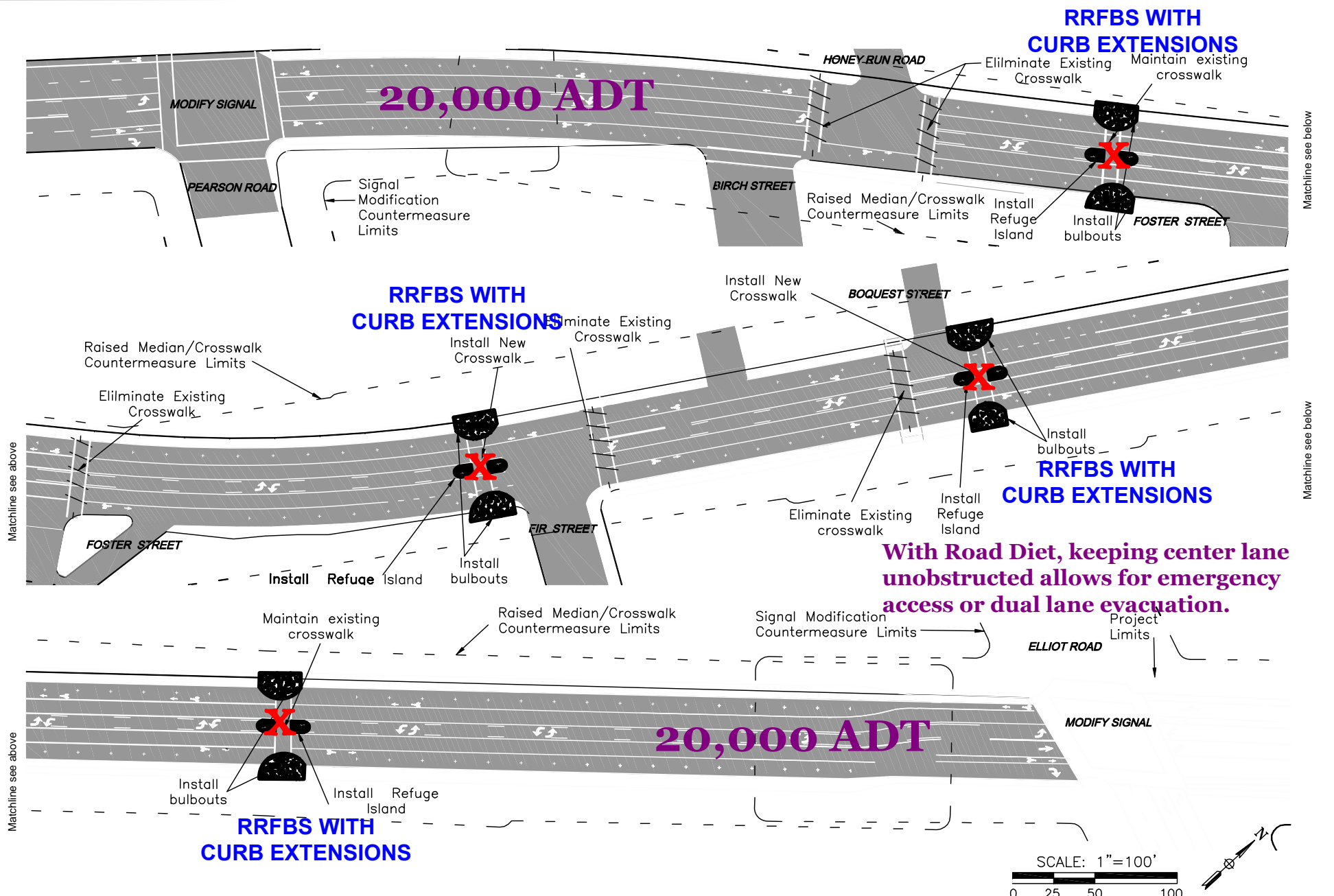
SKYWAY CORRIDOR PROJECT
Town of Paradise

Skyway Preferred Alternative
Segment A2 -Town Hall to S/O Pearson Road

1 of 2



**Whitlock & Weinberger
Transportation, Inc.**
490 Mendocino Avenue, Suite 201
Santa Rosa, CA 95401
(707) 542-9500 Fax: (707) 542-9590



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SHEET 2 Of 2 SHEETS		

SKYWAY CORRIDOR PROJECT Town of Paradise	
Skyway Preferred Alternative Segment B-Pearson Road to Elliott Road	
2 of 2	



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Benefit / Cost Calculation Result**1. Project Information**

Application ID

HSIPL 5425 (024) - Downtown Paradise
Safety Project December 2013

Version

1

2. Countermeasures and Crash Data

Crash Data Time Period

01/01/2006

to

12/31/2010

Years

5

- Road diet (reduce travel lanes from 4 to 3 and add a two way left-turn lane)

CM Number	Project Type	Crash Type	CRF	Life
R15	Geometric Mod.	All	30	20

Crash Type	Fatality (Death)	Severe Injury	Injury - Other Visible	Injury - Complaint of Pain	Property Damage Only	Total
All	0	0	6	17	9	32

Annual Benefit	\$ 78,234	Cost	\$ 615,000
Life Benefit	\$ 1,564,680	B/C Ratio	2.54

- Improve signal timing (coordination, phases, red, yellow, or operation)

CM Number	Project Type	Crash Type	CRF	Life
S3	Signal Mod.	All	15	10

Crash Type	Fatality (Death)	Severe Injury	Injury - Other Visible	Injury - Complaint of Pain	Property Damage Only	Total
All	0	0	2	15	10	27

Annual Benefit	\$ 27,165	Cost	\$ 205,000
Life Benefit	\$ 271,650	B/C Ratio	1.33

- Install pedestrian crossing (with enhanced safety features / curb-extensions)

CM Number	Project Type	Crash Type	CRF	Life
NS18	Ped and Bike	Ped & Bike	35	20

Crash Type	Fatality (Death)	Severe Injury	Injury - Other Visible	Injury - Complaint of Pain	Property Damage Only	Total
Ped & Bike	2	0	0	1	0	3

Annual Benefit	\$ 564,389	Cost	\$ 205,000
Life Benefit	\$ 11,287,780	B/C Ratio	55.06

3. Benefit Cost Result

Total Benefit	\$ 13,124,110
Total Cost	\$ 1,025,000
B/C Ratio	12.80

Safety Practitioner / Engineer: Marc Mattox

Signature:



By signing this B/C Calculation Result, you are attesting to your authority / responsibility at your local agency for this work and you are attesting to the accuracy of the values on this page and that they have been entered into the HSIP Application Form correctly, **DO NOT SIGN** if any of this is not the case.